



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

TM

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,683	10/10/2001	Tomohiro Hayashi	10873.814US01	9431
7590	12/11/2003		EXAMINER	
Merchant & Gould P.C. P.O. Box 2903 Minneapolis, MN 55402-0903			BERCK, KENNETH A	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No .	Applicant(s)	
	09/975,683	HAYASHI ET AL.	
	Examiner Ken A Berck	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 10-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 10-14 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 10 October 2001 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
 a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1/24/02.
- 4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)
- 6) Other:

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamai et al. (US 6617018) in view of Aoki et al. (US 4814132).

Regarding claim 10, Tamai discloses (column 7, lines 25-34) a method of manufacturing a PDP by coating a paint for forming an insulating film (column 5, lines 23-30) onto a member of a PDP (column 12, lines 25-37) with inorganic fine particles (column 5, lines 30-40), a binder resin (column 6, lines 57-67) and a solvent (column 11, lines 45-50) and firing the paint to form an insulating film on the member (column 9, lines 8-15).

Tamai fails to specifically point out the contact angle of less than 5 degrees.

Aoki discloses (column 4, lines 1-9) the contact angle between the materials being small in order for the wettability of the first material to be increased.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method of Tamai with the contact angle between the materials being small in order for the wettability of the first material to be increased, as taught by Aoki, and discovering an optimum value of a result effective variable involves only routine skill in the art.

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamai et al. (US 6617018) in view of Akiba (US 6414435).

Regarding claim 11, Tamai discloses all of the above claim limitations but fails to clearly point out the back plate with an address electrode serving as a protective film.

Akiba discloses (fig 1) an insulating film on the back plate with an address electrode serving as a protective film in order to electrically insulate the electrode and supply power to drive the device.

Hence it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the method of Tamai with the insulating film on the back plate with an address electrode serving as a protective film in order to electrically insulate the electrode and supply power to drive the device, as taught by Akiba.

Regarding claim 12, Tamai discloses all of the above claim limitations but fails to clearly point out the insulating film serves as partition walls.

Akiba discloses (fig 1) an insulating film on the back plate as partition walls (20-1) in order to electrically insulate the device and support the structure.

Hence it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the method of Tamai with the insulating film on the back plate with as partition walls (20-1) in order to electrically insulate the device and support the structure, as taught by Akiba.

Regarding claim 13, Tamai discloses all of the above claim limitations and the insulating film serving as a dielectric layer, but fails to clearly point out the insulating film on the front plate with display electrodes.

Akiba discloses (fig 1) an insulating film (11) on the front plate with display electrodes in order to store wall electric charge.

Hence it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the method of Tamai with the insulating film on the front plate with display electrodes in order to store wall electric charge, as taught by Akiba.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamai et al. (US 6617018) in view of Saito et al. (US 5879217).

Tamai discloses all of the above claim limitations but fails to clearly point out cleaning by ultraviolet cleaning.

Saito discloses (column 7, lines 1-10) the surface being ultraviolet cleaned in order to improve wettability and to break down the dirt adhered to the surface.

Hence it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the method of Tamai with the surface being ultraviolet cleaned in order to improve wettability and to break down the dirt adhered to the surface, as taught by Saito.

### Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken A Berck whose telephone number is (703)305-7984. The examiner can normally be reached on Mon-Fri 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703)305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

*Joseph Williams*  
*Joseph Williams*

*kab*  
kab